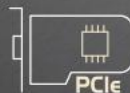
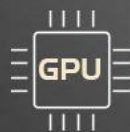


QNAP[®]



TS-x64

Intel[®] Celeron[®] N5095 4-core NAS with dual 2.5GbE supports M.2 SSD caching and PCIe expandability for high-speed transmission, AI, and virtualization applications

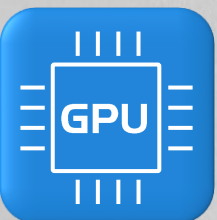


Bye-bye Gigabit NAS, hello 2.5GbE NAS

**2.9
GHz**

Quad-core processor

Intel® Celeron® N5095 4-core burst up to 2.9 GHz processor, fully supports various NAS applications



Integrated Intel® GPU

Support 4K @60Hz output and hardware transcoding

**4K
HDMI**

4K HDMI port

Provides 4K screen output for monitoring or various multimedia applications through HD Station



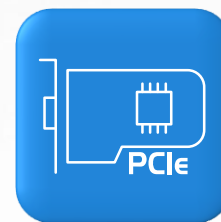
Dual 2.5 GbE LAN ports

Sufficient 2.5 GbE network bandwidth provides smooth data transmission experience



Dual M.2 PCIe SSD slots

Optimize SSD and HDD storage space



PCIe Gen3 expansion slots

Support various expansion cards, easily expand the dual-port 10G network

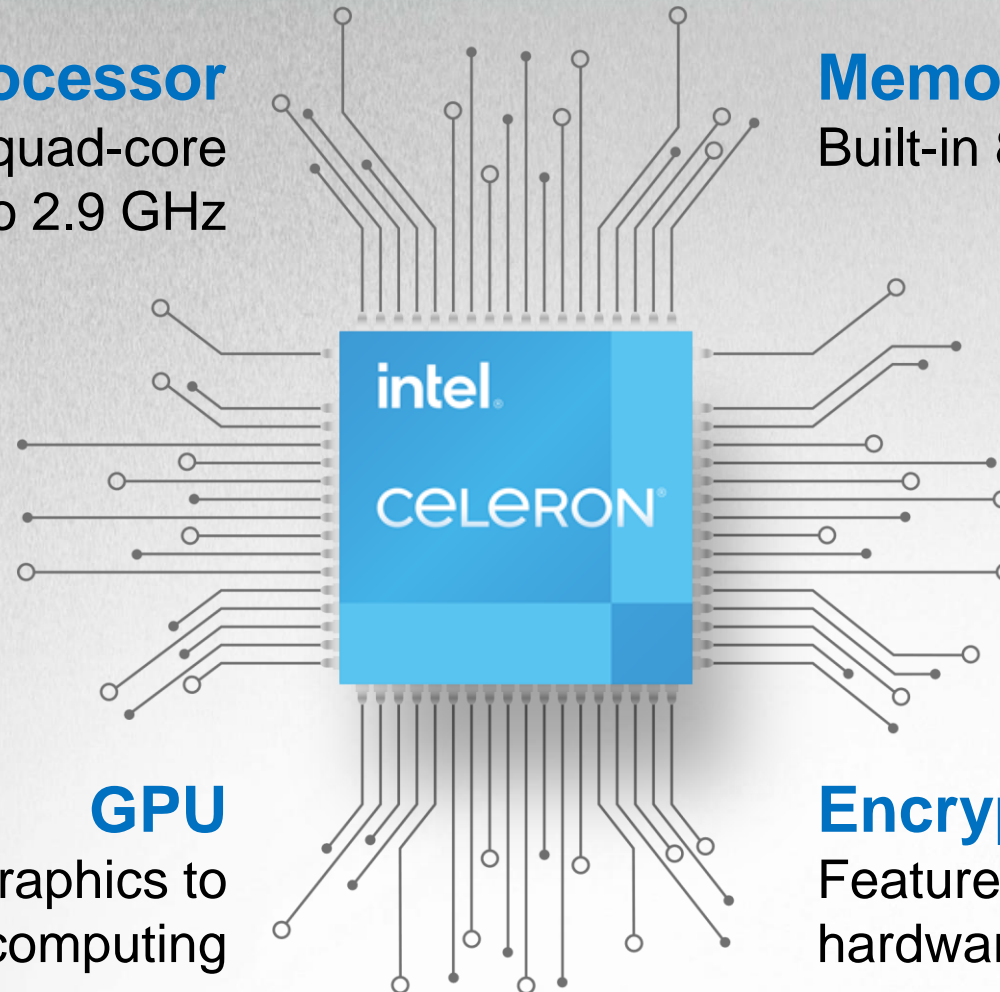
New-generation quad-core processor for optimized performance

Processor

Intel® Celeron® N5095 quad-core processor, burst up to 2.9 GHz

Memory

Built-in 8 GB DDR4 memory



GPU

Built-in Intel® UHD Graphics to speed up video graphical computing

Encryption Engine

Features Intel® AES-NI 256 hardware-accelerated encryption

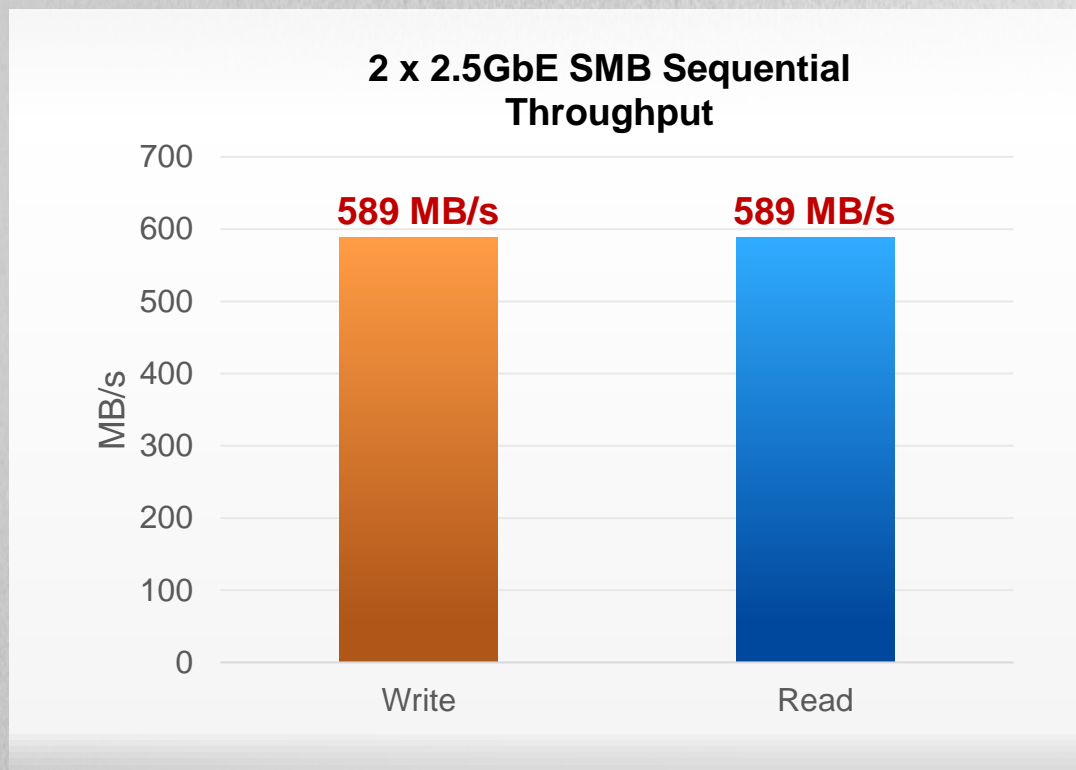
2.5GbE-Ready without any additional NIC



*Dual 2.5 GbE ports

Provide up to 5Gbps data transfer capability through Port Trunking network aggregation.

*Also compatible with 1GbE & 100MbE



Test environment:

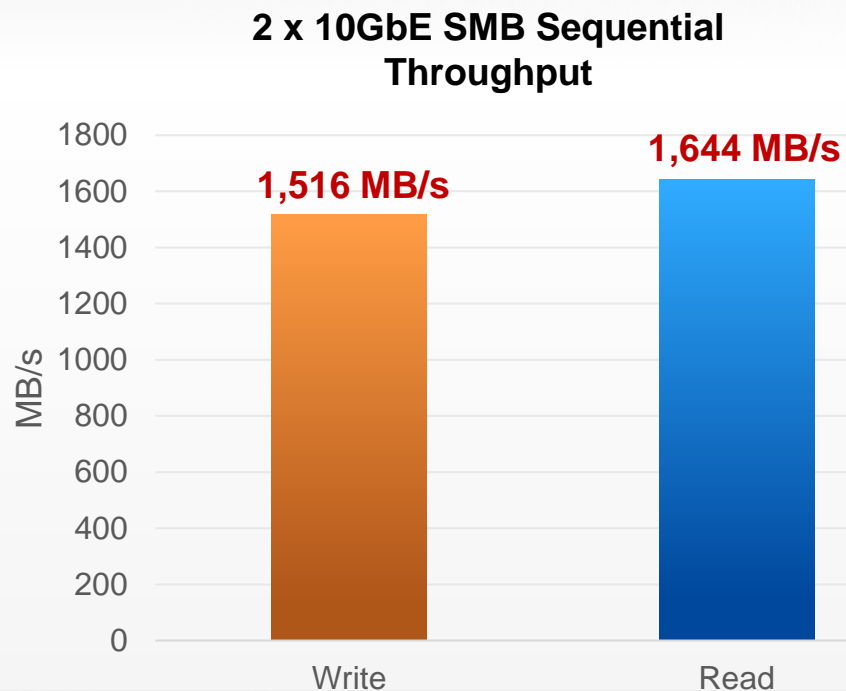
NAS | TS-664-8G, QTS 5.0.1, 6 x Samsung 850 PRO 512GB SSDs, RAID 5, thick volume
Client PC | Windows server 2019, Intel i7-6700 3.4GHz, 64GB RAM
IOmeter | RAM*4, 30-sec ramp up time, 3-min seq. run time, 1 worker, 32-outstanding

Upgrade to dual-port 10GbE with a PCIe network card

Futureproof your network connection by installing a PCIe dual-port 10GbE network card that delivers up to 1,644 MB/s transfer speed

For more expansion card compatibility :

[https://www.qnap.com/en/compatibility/?model=637&category=11&filter\[type\]=1](https://www.qnap.com/en/compatibility/?model=637&category=11&filter[type]=1)



Test environment:

NAS | TS-664-8G, QTS 5.0.1, 6 x Samsung 850 PRO 512GB SSDs, RAID 5, thick volume

Client PC | Windows server 2019, Intel i7-6700 3.4GHz, 64GB RAM

NIC | QXG-10G2TB

IOmeter | RAM*4, 30-sec ramp up time, 3-min seq. run time, 1 worker, 32-outstanding

Optional Support USB / SATA JBOD & RAID Storage Expansion Unit, achieve up to 300TB storage space

USB



TR-002



TR-004



TL-D800C



TR-004U



TL-R1200C-RP

Maximum of JBOD / RAID expansion enclosures

TR-002	2
TR-004	2
TR-004U	2
TL-D800C	2
TL-R1200C-RP	2
TL-D400S	1
TL-D800S	1
TL-D1600S	1
TL-R400S	1
TL-1200S-RP	1

SATA



TL-D400S



TL-D800S



TL-D1600S



TL-R400S

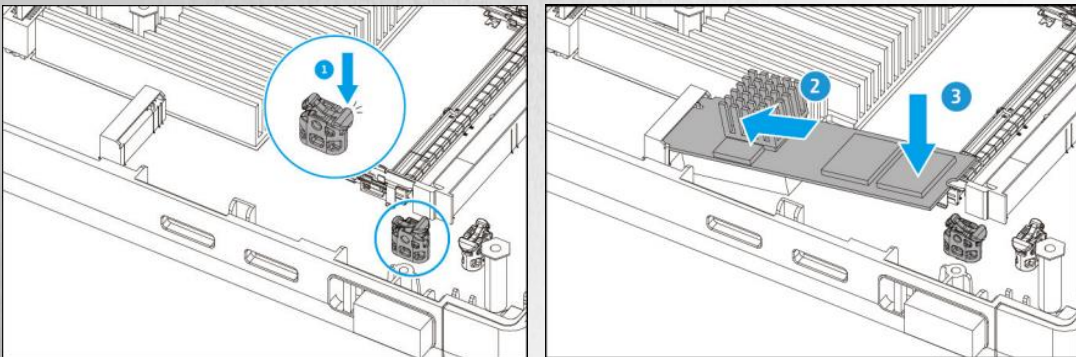


TL-R1200S-RP

Offer M.2 PCIe Gen3 slot for SSD tiering/caching or edge acceleration



- **3-step installation, supports M.2 2280 PCIe Gen3 x1**
 1. M.2 NVMe PCIe SSD
 2. Coral Edge TPU AI accelerator
- **Benefits of using M.2 NVMe PCIe SSDs?**
 1. **SSD cache:** Improved performance at a lower cost
 2. **Qtier:** Automatically move hot and cold data between SSD and HDD tiers, achieving both high performance and large capacity





One Touch Copy backup with USB 3.2 Gen 2

Front view of TS-x64

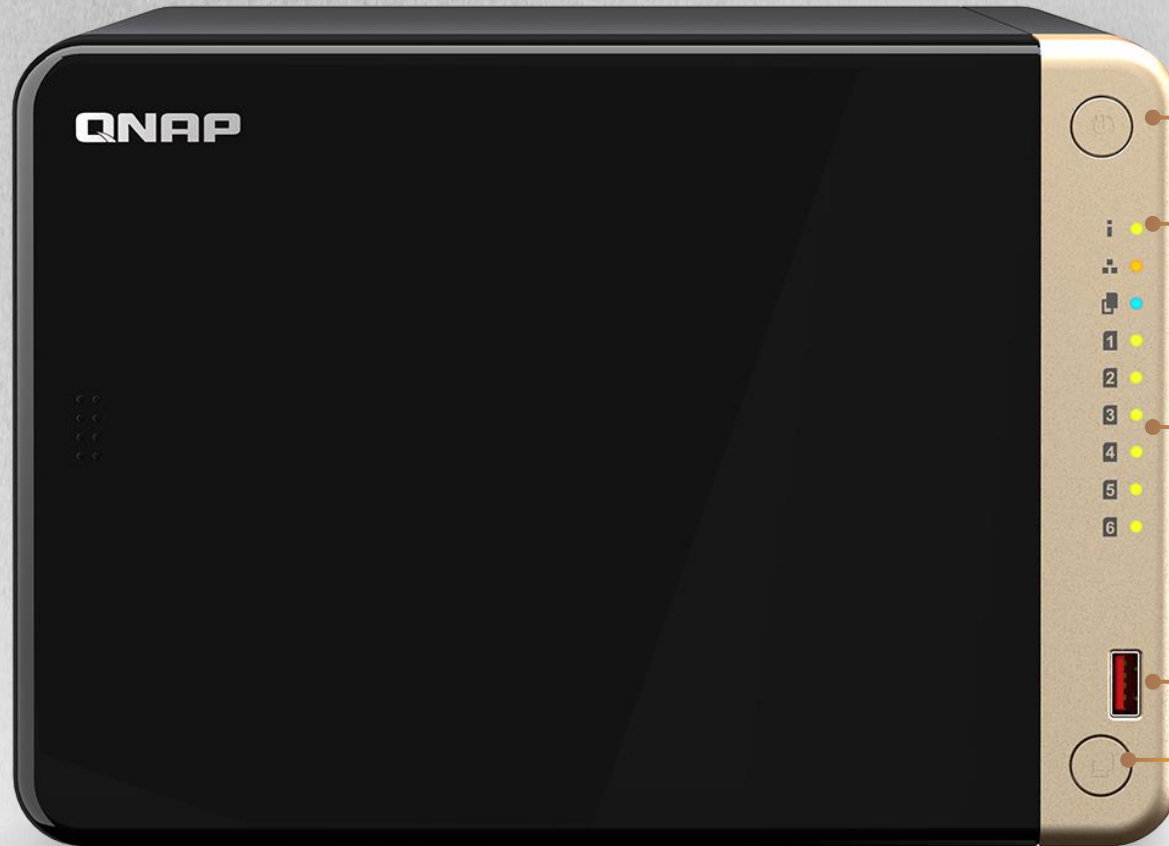
TS-264



TS-464



TS-664



Power button

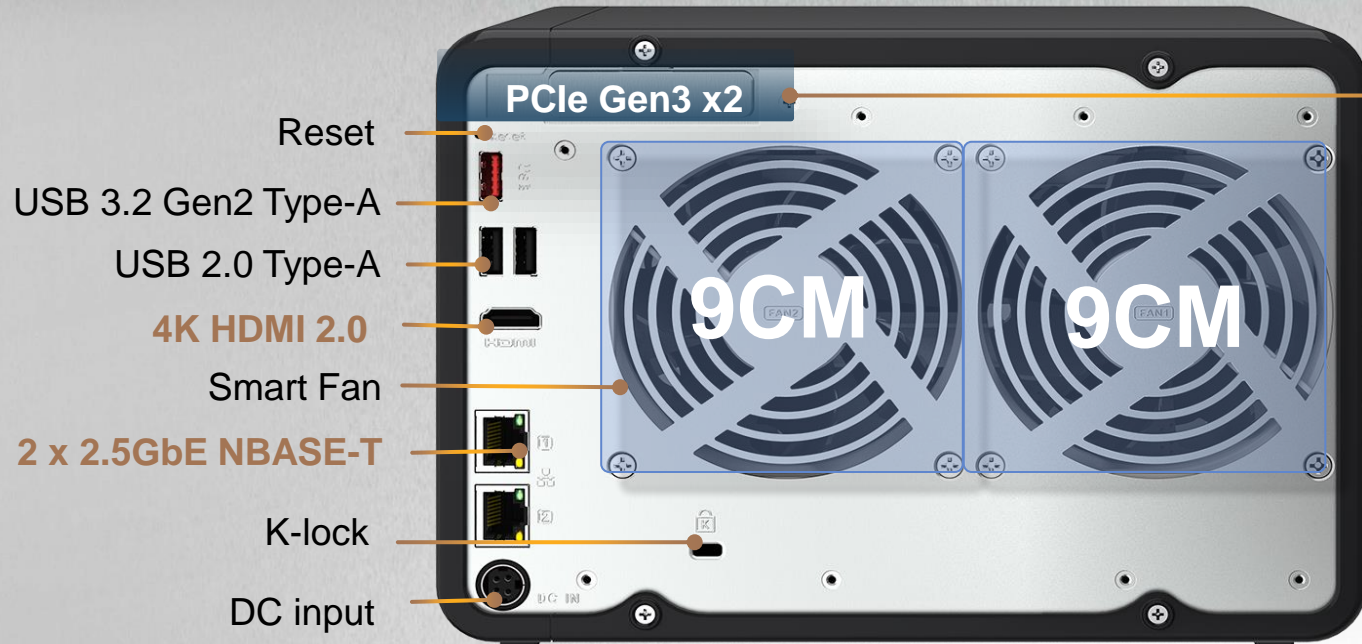
LED indicators with adjustable brightness: Status, LAN, USB Copy

Drive #1~#6

USB 3.2 Gen2 (10Gbps)

USB One-Touch-Copy

Rear view of TS-x64



TS-464

TS-664



TS-264

PCIe Gen3 expansion slots support various 5GbE / 10GbE network card and interface expansion card

QXG-5G1T-111C

1 x 5G/2.5G/1G/100M



QXG-5G2T-111C

2 x 5G/2.5G/1G/100M



QXG-10G1T

1x 10G/5G/2.5G/1G/100M



QXG-10G2TB

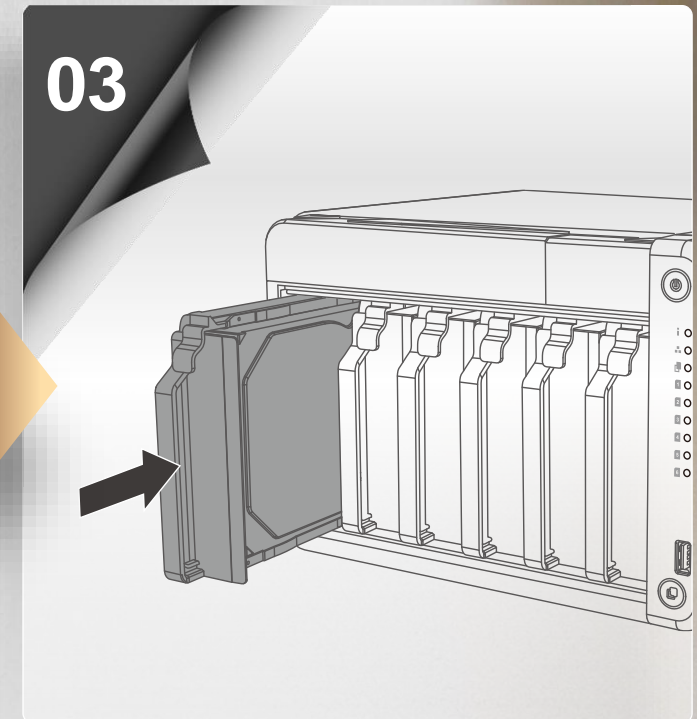
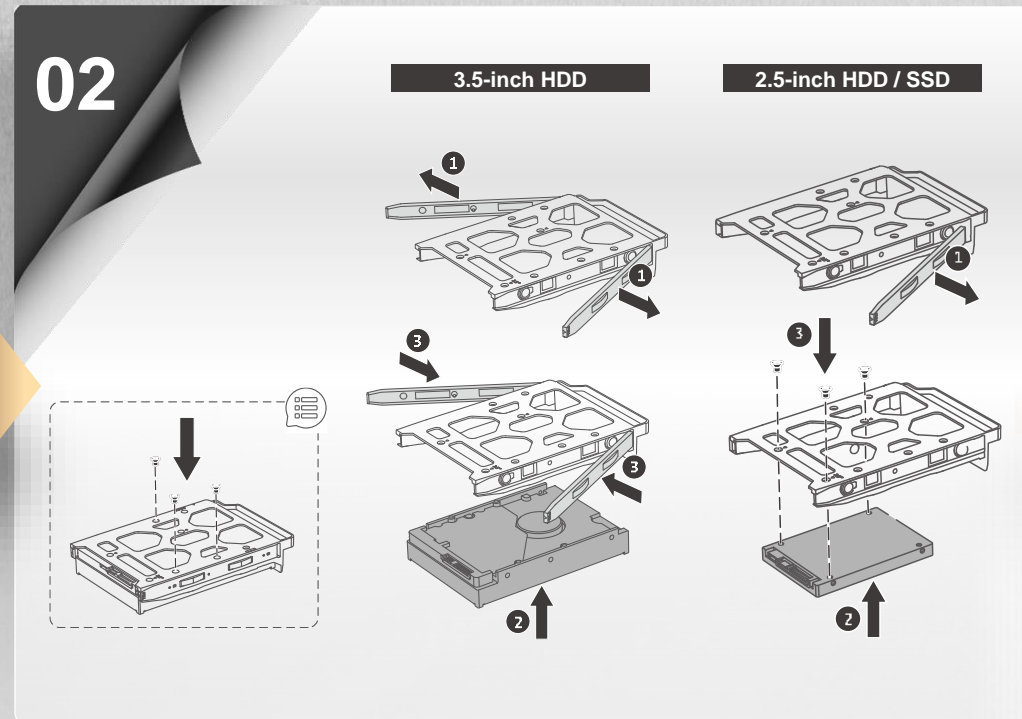
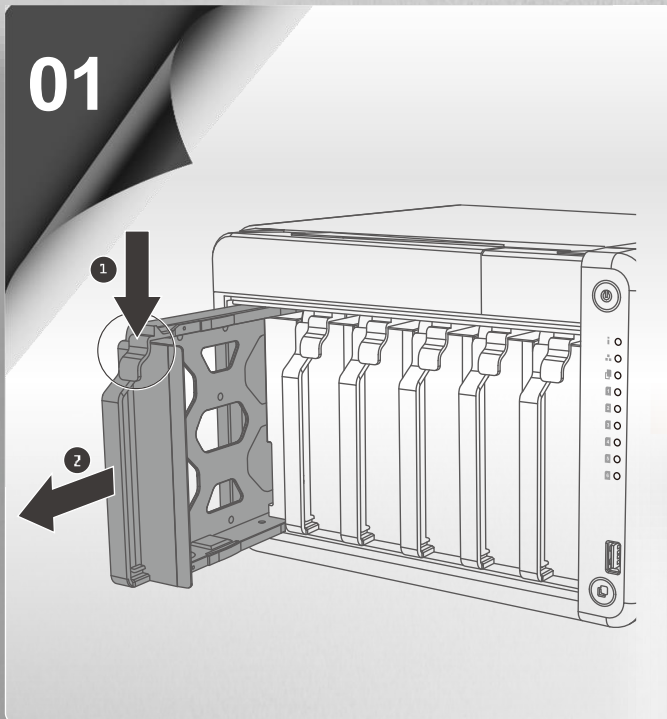
2 x 10G/5G/2.5G/1G/100M



For more, please check QNAP compatibility list : <https://www.qnap.com/go/compatibility/>

Easy to install HDDs and SSDs

Install 3.5-inch drives without tools



Compared with others, TS - x64 with greatly improved performance



TS-264



TS-464



TS-664

Other 4-bay NAS

	TS-264	TS-464	TS-664	Other 4-bay NAS
SKU	TS-264-8G	TS-464-8G	TS-664-8G	4-bay
CPU	Intel® Celeron® N5095 (or N5105); 4C/4T Burst up to 2.9 GHz			AMD Ryzen R1600 ; 2C/4T Burst up to 3.1 GHz
Memory	8GB onboard (Non-expandable)			4GB DDR4 ECC (2 x DDR4 SODIMM slots ; max 32GB)
Drive bay	2	4	6	4
M.2 SSD slots	2 x M.2 2280 PCIe Gen3 x1 slots			2 x M.2 2280 NVMe SSD
LAN port	2 x 2.5GbE			2 x Gigabit (RJ-45)
HDMI	1 x HDMI 2.0 (4K@60Hz)			-
PCIe	1 x PCIe Gen3 x2 slot (support various QNAP expansion cards)			1 x PCIe Gen3 x2 slot (only support 1-port 10GbE NIC)
USB	2 x USB 3.2 Gen2 Type-A + 2 x USB 2.0			2 x USB 3.2 Gen1 Type-A + 1 x eSATA
10G SMB Sequential Throughput	TS-464 : 2 x 10GbE SMB Sequential Throughput (1MB) Read : 1,647 MB/s , Write : 1,632 MB/s			1 x 10GbE SMB Sequential Throughput (64KB) Read: 1,179 MB/s ,Write: 772 MB/s

Live Demo

- Installing M.2 SSD
- 2 x 10GbE SMB Sequential Throughput



TS-264

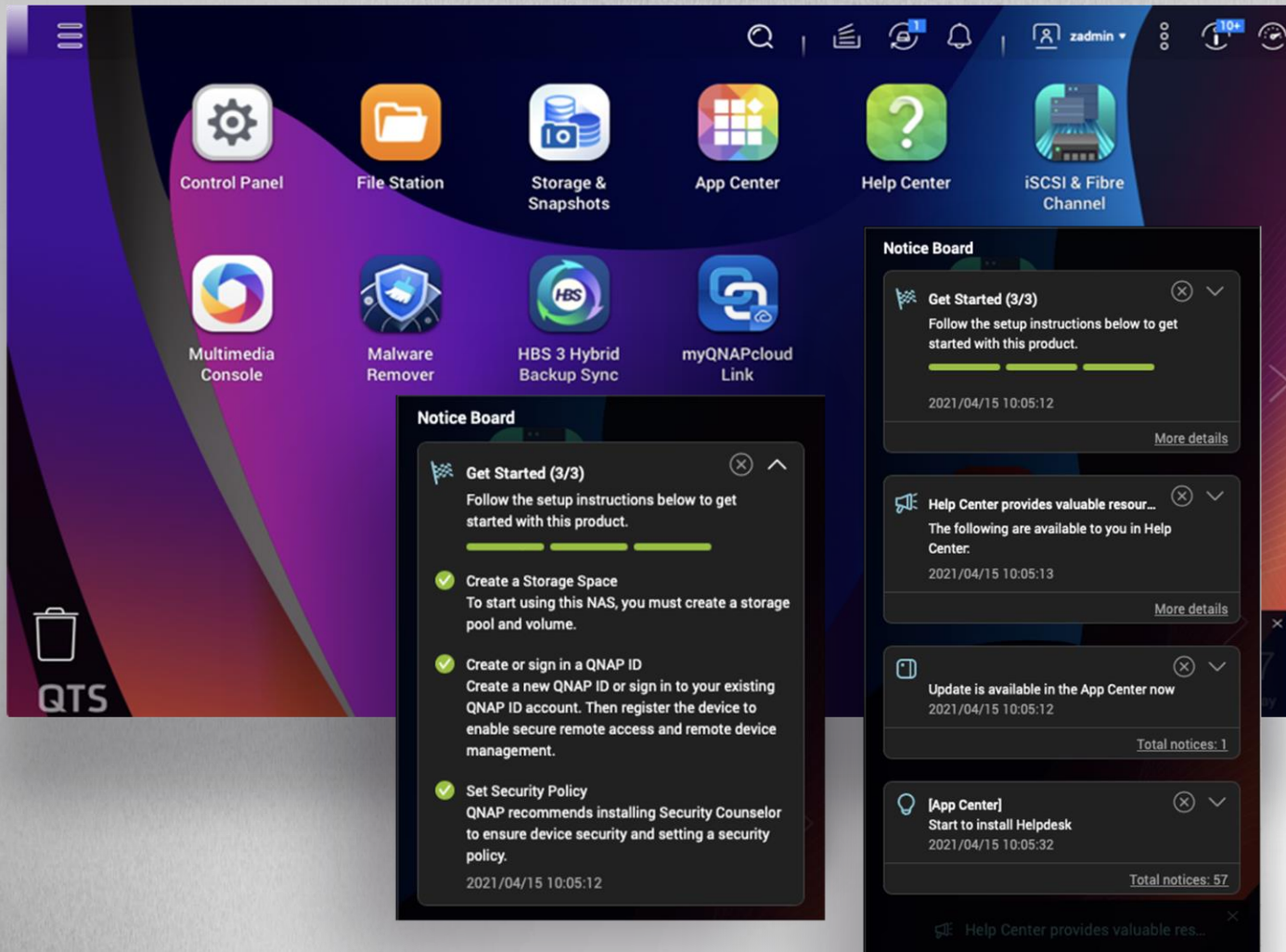


TS-464



TS-664

Equipped with the latest QTS 5 NAS operating system



- New Linux Kernel 5.10 improved security
- Smooth and reactive user interface
- Increased NVMe SSD cache performance
- Supports WireGuard VPN

Data Backup, Sync and Recovery Solution



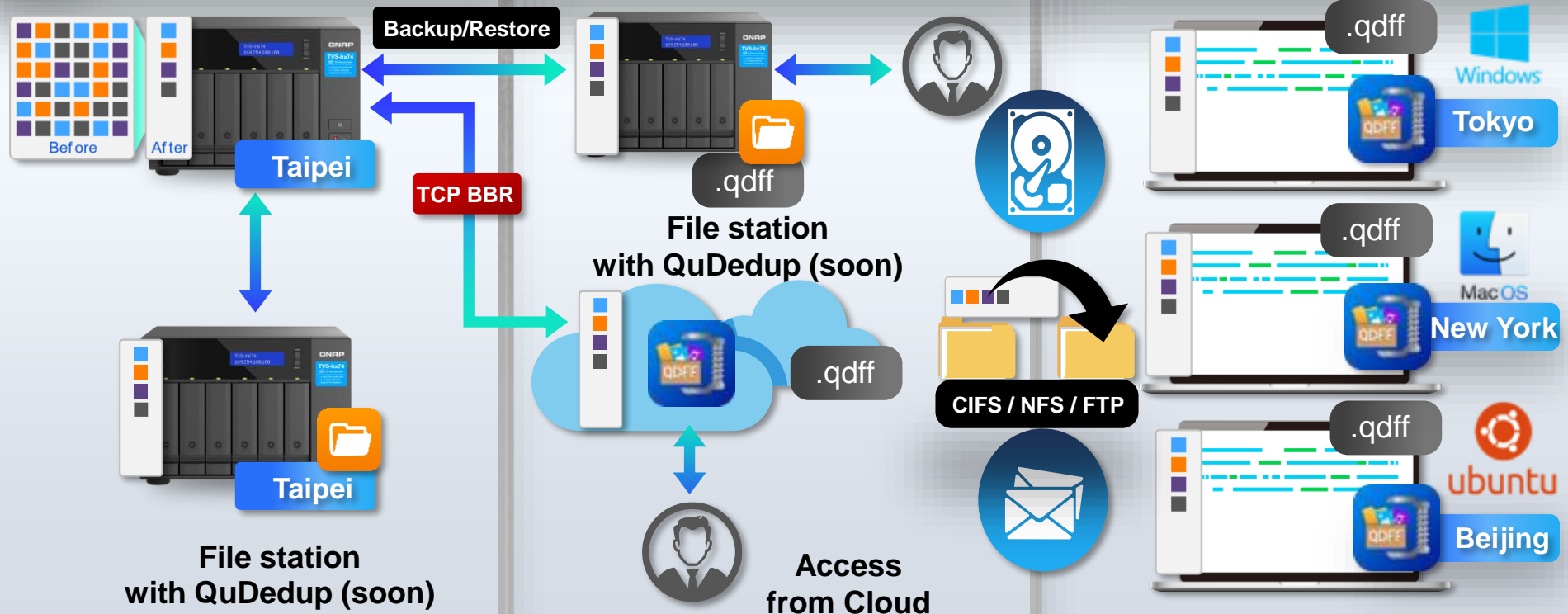
HBS 3 (Hybrid Backup Sync 3)

Keep 3 copies, on 2 types of storage, and store 1 copy off-site to ensure your data safety

From local NAS
(Hybrid Backup Sync)

From remote NAS
(File Station)

Carry and Use
(QuDedup Extract Tool)



Snapshots help you fight with Ransomware Threats

TS-x64 supports Snapshot , like taking a photo - within seconds the complete status of your NAS system and data is recorded

Mitigate the growing threat of ransomware

Step 1

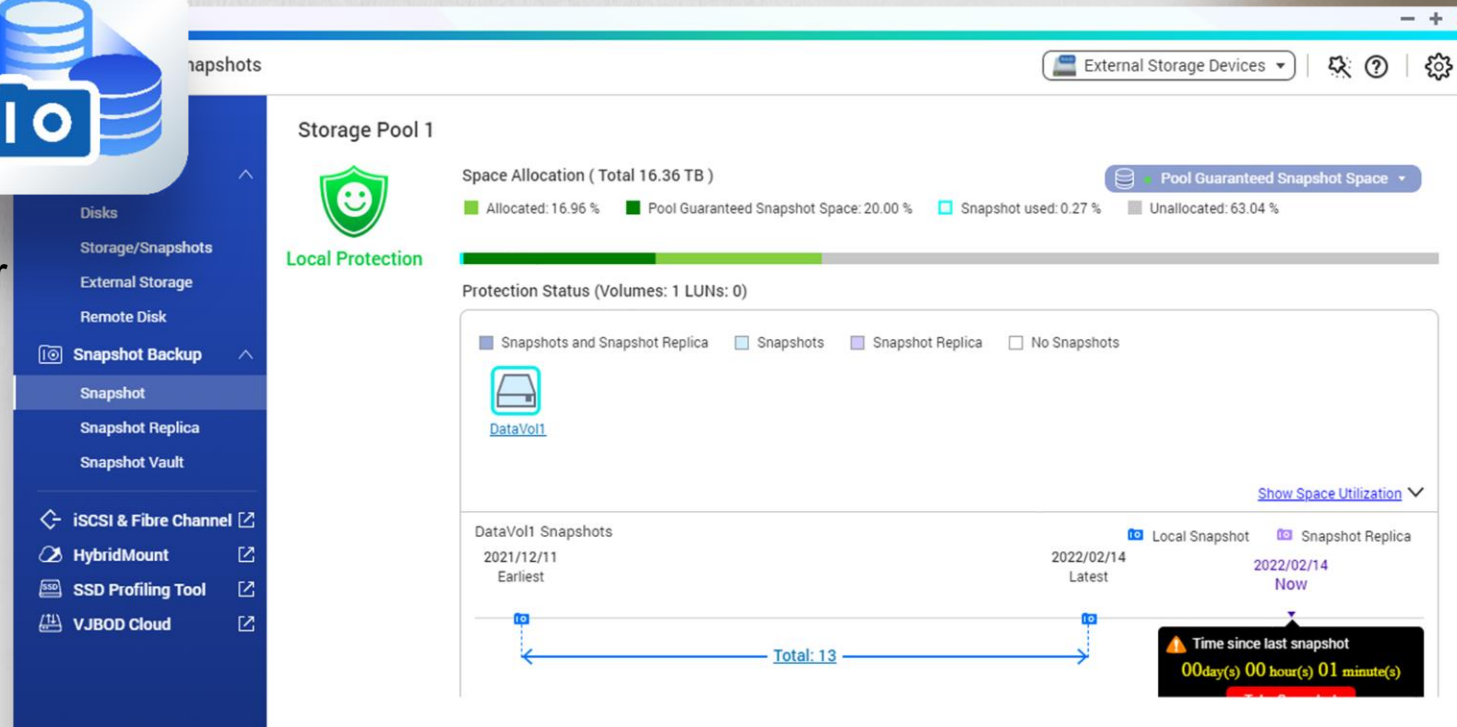
Regularly update, and use Malware Remover

Step 2

Routinely back up to your NAS, and create multi-version snapshots

Step 3

Back up snapshots to another QNAP NAS



Intelligent and automated file management



Qsirch 5

Google™ like Search Tool for NAS

- Enables you to find files based on filename, content, and metadata.
- Can choose from a variety of search options to quickly find documents, images, videos, emails, and other NAS-based files.
- Available using a companion mobile app, browser extension, and Mac® Finder



Qfiling 3

All you need to do is categorize your files,
set a schedule !

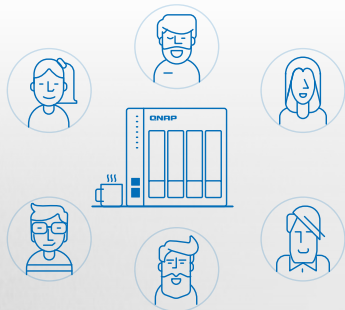
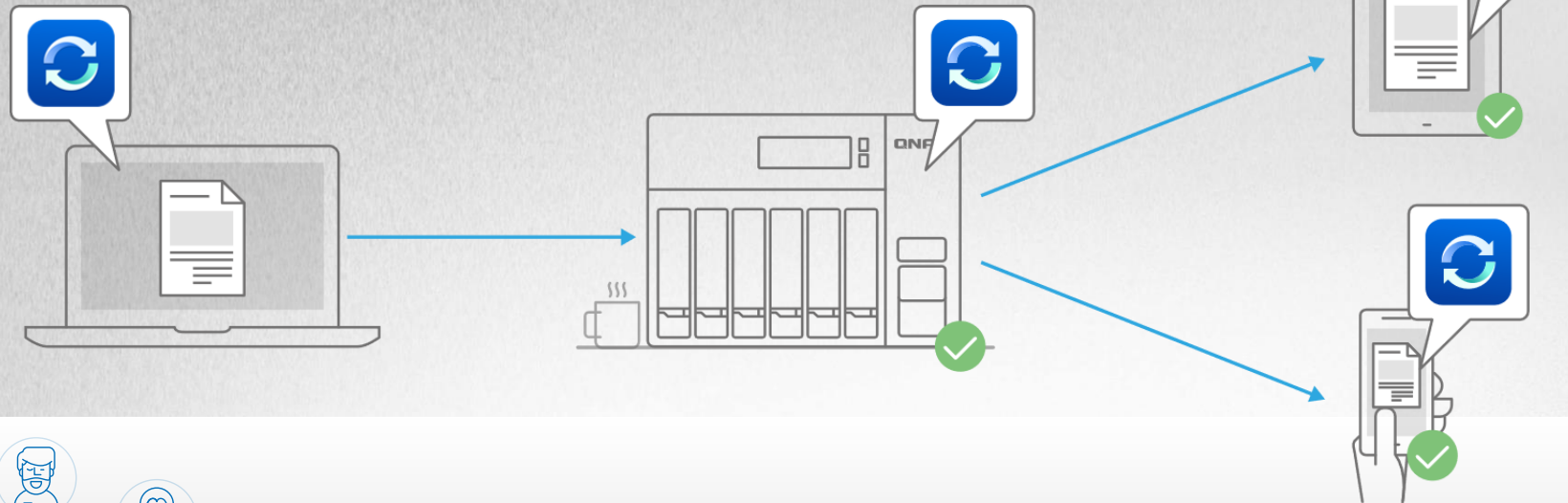


- 2 tasks : Archive task 、 Recycle task
- 3 types of setting : one-time 、 Scheduled 、 Real-time
- 9 editing modules : Such as Face Blur 、 Video transcoding 、 Encryption & Decryption...

Qsync , Cross-device file sync for individuals and teams



When there are different devices such as laptops and mobile phones, as long as the files are modified on a single device, the modified files will be automatically synchronized to other devices.



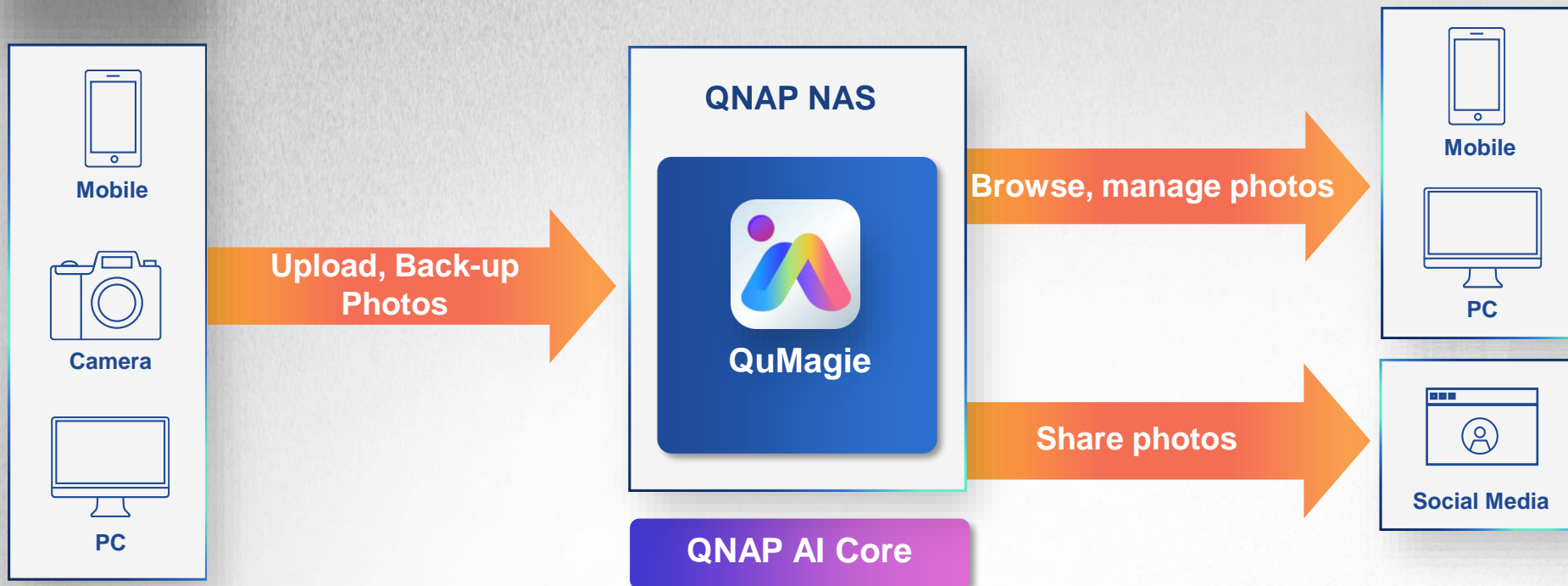
Every member of your team should have access to the latest version of files and data. Try Qsync now, and files will be automatically distributed to your teams' devices, accelerating and streamlining your workflows.

Faster image identification with integrated Intel® OpenVINO™ AI engine



QuMagie

QuMagie integrates AI image recognition and intelligent classification for your photo.



New Intel CPU - provides integrated GPU , support HDMI 4K output



Intel® Celeron® N5095 processor

Quad-core, 2.0 GHz. Burst up to 2.9 GHz.

Intel® UHD Graphics

Support 4K @60Hz output and h.264/265 hardware transcoding



CAYIN MediaSign Player

*Enables your QNAP NAS to support mainstream image and video formats, including HEIF/ HEVC (H.265), and video transcoding.

Video output



Up to 4K

Transcoding



Support 4K H.264/*265 transcoding



***CAYIN Plus for H.265 transcoding**

Full 4K UHD multimedia experiences



4K HDMI v2.0 60Hz output

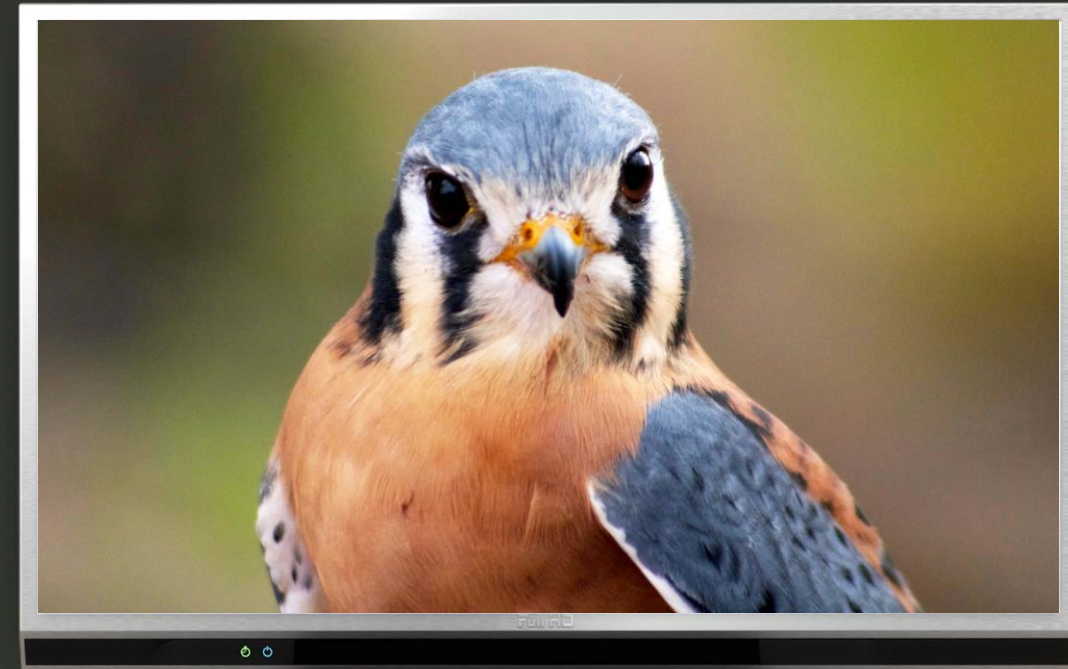


Plex streaming & transcoding



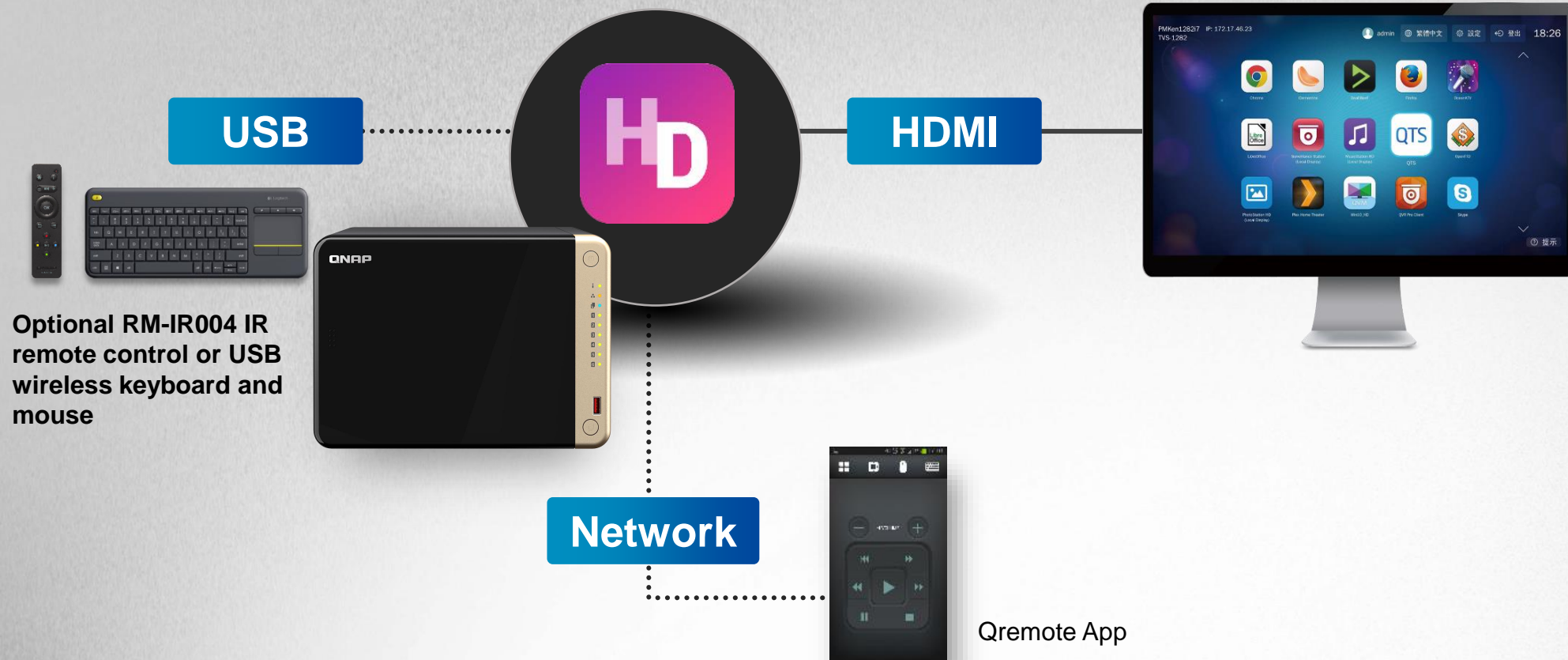
Use Cinema28 for multi-room streaming

With optional RM-IR004 IR remote control
or USB wireless keyboard and mouse



HybridDesk Station support multiple A/V applications

Connect an HDMI monitor to output a virtual machine desktop through Virtualization Station, or output an Ubuntu desktop with Ubuntu Linux Station.



Linux Station Turns NAS into Ubuntu PC



1

Connect NAS to monitor via HDMI

multiple versions of Ubuntu

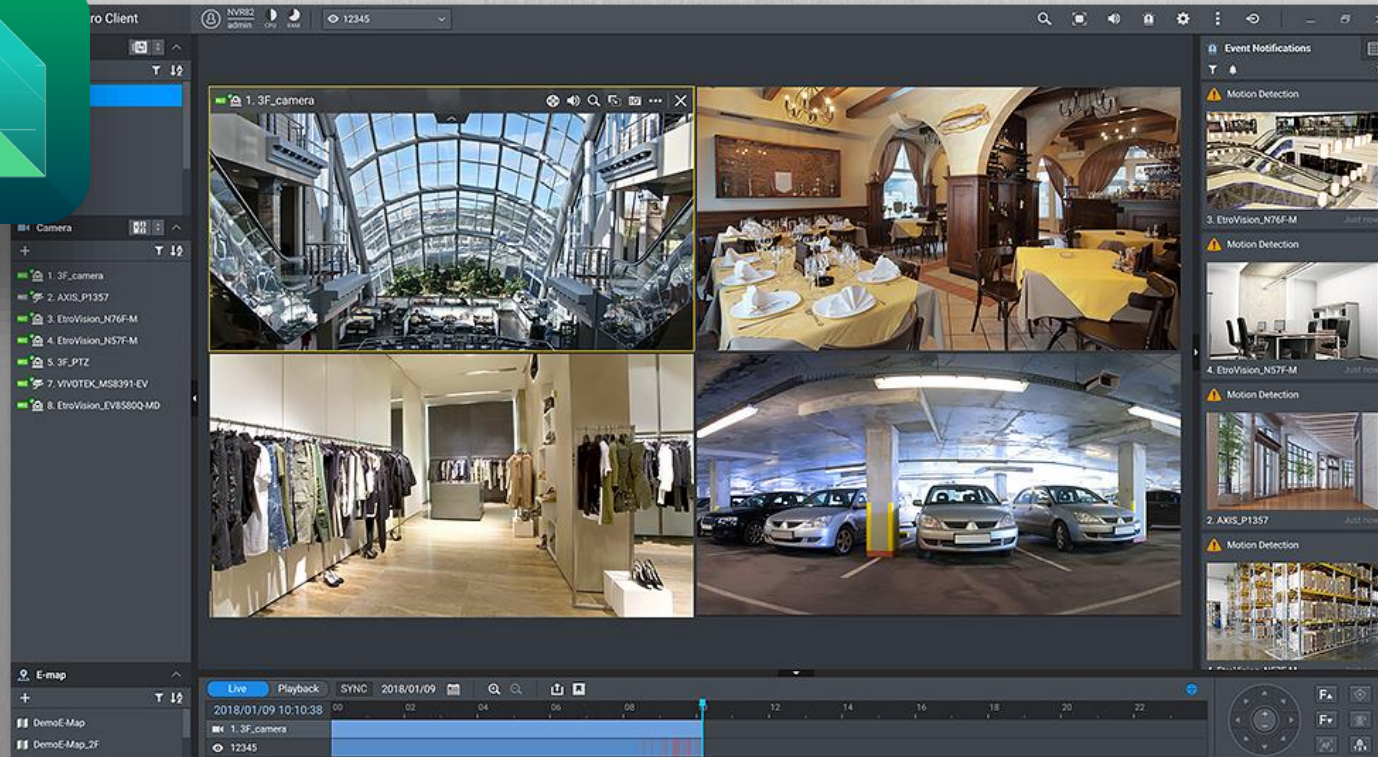
Ubuntu 18.04
or above version

2

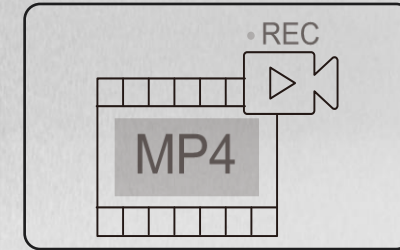
Connect the mouse and keyboard to the NAS, and the NAS becomes an Ubuntu PC!



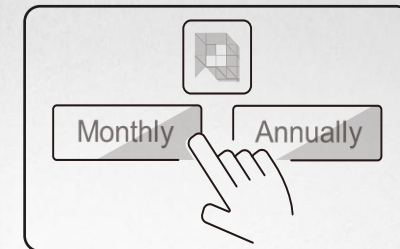
QVR Elite Smart Surveillance System



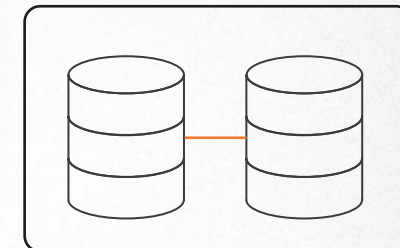
2 channels are included for free
(expandable)



Record using the MP4 Format



Flexible Subscription



Expandable Capacity

QVR Elite with powerful IP surveillance camera management and support

More than **190** brands

 GeoVision

 **VIVOTEK**
BUILT WITH RELIABILITY

 Panasonic

 **AXIS**
COMMUNICATIONS

 MOBOTIX

 Canon

 **HIKVISION**

 **a|hua**
TECHNOLOGY

 Honeywell

 **Brickcom**

More than **6000** models



ONVIF Profile support



Record into QVR Elite
by using the
RTSP/RTMP link with
no integration needed.
Multiple video sources
are supported - not just
IP cameras.

Shipped with 3-year standard warranty, optional up to 5-year coverage

Backed by a 3-year warranty at no additional cost.



TS-264



TS-464



TS-664

Extend hardware warranty up to 5 years
You can also purchase a warranty extension that extends your warranty coverage up to 5 years.

Learn more :

<https://www.qnap.com/service/product-warranty/en/>

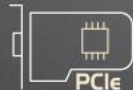
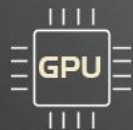
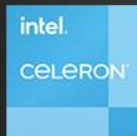


QNAP[®]



TS-x64

Bye-bye Gigabit NAS, hello 2.5GbE NAS !



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